

PATENT

Atty. Dkt. No. ATT/2000-0660

REMARKS

In view of the following discussion, the Applicants submit that claim 19 is not made obvious under the provisions of 35 U.S.C. §103. Thus, the Applicants believe that claim 19 is now in allowable form.

I. REJECTION OF CLAIM 19 UNDER 35 U.S.C. § 103

The Examiner has rejected claim 19 in the Office Action under 35 U.S.C. § 103 as being unpatentable over Baum et al. (U.S. Patent 6,771,673, issued on August 3, 2004, hereinafter referred to as "Baum") in view of Stoner, et al. (U.S. Patent 6,052,383, issued on April 18, 2000, hereinafter referred to as "Stoner") and in further view of Tsukamoto et al. (U.S. Patent 6,498,794, issued December 24, 2002, herein referred to as "Tsukamoto"). In response, the Applicants respectfully traverse the rejection.

Baum teaches a method and apparatus and data structures for providing access to an edge router of a network. Baum teaches a method of aggregating physical connections from customers for presentation to an access router and de-aggregating traffic from a shared link(s) from the access router (see Baum, Abstract). Baum teaches a method of adding customer addressing information by encapsulation of the customer's original IP traffic (see Baum, Col. 15, lines 50-53). There are two separate frames, the MAC sublayer protocol and the modified Ethernet frame containing the customer information (see Baum, Col. 13, line 61 – Col. 14, line 5; Col.15, lines 63-66). Baum teaches that the Ethernet frame is independent of the original IP packet (see Baum, Col. 16, lines 12-15).

Stoner teaches a LAN to ATM backbone switch module. Information or data is sent to a LAN and the LAN processes this information or data into a format to be stored in a memory means (see Stoner, Col. 4, Lines 15-22). While the information is in the memory means it is analyzed and modified into an ATM format and transferred out of the memory means through the ATM port and ATM line (see *Id.* at 23-29).

Tsukamoto teaches a transmitter with cell switching function (see Tsukamoto, Title). Tsukamoto provides a transmitter capable of efficiently mapping ATM cells of multiple channels to one STS-1 signal (see Tsukamoto, Col. 2, Lines 18-20). In doing so, Tsukamoto uses a ring network composed of optical fiber (see Tsukamoto, Col. 5,

PATENT

Atty. Dkt. No. ATT/2000-0660

Lines 59-62).

The Applicants respectfully submit that Baum, Stoner and Tsukamoto, alone or in any permissible combination, fail to teach, show or suggest an Ethernet protocol network wherein the receiving platform maps the customer descriptor through an ATM switch router to a corresponding one of a plurality of Frame Relay and ATM Permanent Virtual Circuits is employed in a fiber ring infrastructure. Specifically, Applicants' independent claim 19 recites:

19. An Ethernet protocol network comprising:
 a fiber ring infrastructure; and
 a plurality of platforms coupled to the fiber ring infrastructure, each platform serving at least one customer for statistically multiplexing frames onto the fiber ring infrastructure from said one customer and for statistically demultiplexing frames off the fiber ring infrastructure to the one customer
 wherein each platform sending a frame containing a plurality of bits overwrites at least one of the plurality of bits of said frame with a customer descriptor that identifies the sending customer; and routes the frame on a path obtained by mapping the customer descriptor to such path, wherein the receiving platform maps the customer descriptor through an ATM switch router to a corresponding one of a plurality of Frame Relay and ATM Permanent Virtual Circuits. (Emphasis Added)

Applicants' invention teaches the novel concept of an Ethernet protocol network wherein each platform sending a frame containing a plurality of bits overwrites at least one of the plurality of bits of said frame with a customer descriptor that identifies the sending customer; and routes the frame on a path obtained by mapping the customer descriptor to such path, wherein the receiving platform maps the customer descriptor through an ATM switch router to a corresponding one of a plurality of Frame Relay and ATM Permanent Virtual Circuits utilizing a fiber ring infrastructure. The Applicants' invention teaches a method of routing to logically separate traffic received from different customers, resulting in better data security, by modifying the same frame of the original IP data packet. (e.g., See Applicants' Specification, page 5, lines 9-20). The Applicants' invention teaches that the bits within the frame or, more specifically, the VLAN identifier field within the frame, can be modified with customer identification information. As such, this overwriting step is performed by the platform sending the

PATENT

Atty. Dkt. No. ATT/2000-0660

frame in the Applicants' invention (e.g., see Applicants' Specification, page 7, lines 20-22).

The Applicants respectfully submit that the combination of Baum, Stoner, and Tsukamoto does not teach or suggest the present invention. Notably, the combination of Baum and Stoner fails to explicitly disclose a fiber ring infrastructure. Consequently, the Examiner introduces Tsukamoto to bridge this gap that exists between the present invention and the combination of Baum and Stoner. However, the Applicants submit that the combination of Baum and Stoner is not compatible with the teachings of Tsukamoto. More specifically, Baum teaches an aggregation unit that is capable of both receiving a packet from at least one customer and subsequently removing layer 2 header information from the packet before replacing the data with a unique bit string (see Baum, column 8, lines 16-22). The aggregation unit is also directly coupled to a single access router via one or more high bandwidth links (see Baum, column 11, lines 60-64; FIG. 10). The architecture taught by Baum employs a single access router for each respective aggregation unit. Therefore, communication between an aggregation unit and any other communication network component must be conducted indirectly via the access router (see FIGs. 10 and 19). Furthermore, Baum states that the aggregation unit is provided to aggregate physical connections from customers for presentation to an access router and to de-aggregate traffic from a shared link from the access router (see Baum, column 7, lines 42-45). Thus, there is no teaching of, or need for, the direct communication between one or more aggregation units. Even if there was a need for the aggregation units to communicate with each other (and the Applicants contend that there is no need for the aggregation units to communicate), the aggregation units would require two or more access servers to establish a connection (see Baum, FIG. 19). This configuration is not compatible with the fiber ring network architecture utilized by the present invention.

Rather, the present invention teaches an Ethernet-based metropolitan area network (MAN) where a plurality of platforms communicate directly with each other via the fiber ring architecture. More specifically, these platforms are able to communicate with each other within the ring network without the use of the edge router 18 (see Applicants' specification, page 2, 3rd paragraph; FIG. 1). This would not be possible if

PATENT

Atty. Dkt. No. ATT/2000-0660

the aggregation unit taught by Baum was incorporated into the MAN of the present invention.

Therefore, due to the incompatibility between the aggregation unit and the present invention's described ring network (e.g., each aggregation unit requires an access router for communicating) as well as the lack of teaching that two aggregation units would need to communicate with each other in any type of network, much less a fiber ring network, the Applicants respectfully submit that there is no suggestion or motivation to combine Tsukamoto with Baum in view of Stoner.

Therefore, the Applicants submit that combination of Baum, Stoner and Tsukamoto does not teach or suggest the present invention as recited in independent claim 19. Thus, the Applicants respectfully request the rejection be withdrawn.


II. CONCLUSION

Thus, the Applicants submit that claim 19 now fully satisfies the requirements of 35 U.S.C. §103. Consequently, the Applicants believe that the claim is presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the maintenance of the final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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Kin-Wah Tong, Attorney
Reg. No. 39,400
(732) 530-9404

Patterson & Sheridan, LLP
595 Shrewsbury Avenue
Shrewsbury, New Jersey 07702